

Amendments to the Claims

The following listing of claims will replace all prior versions and listings of claims.

Listing of Claims:

1. (Previously Presented) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:
 - (a) a protein consisting of amino acid residues 1 to 136 of SEQ ID NO:310;
 - (b) a protein consisting of amino acid residues 25 to 136 of SEQ ID NO:310;
 - (c) a protein consisting of a portion of SEQ ID NO:310, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:310; and
 - (d) a protein consisting of a portion of SEQ ID NO:310, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:310.
2. (Previously Presented) The antibody or fragment thereof of claim 1 that specifically binds protein (a).
3. (Previously Presented) The antibody or fragment thereof of claim 1 that specifically binds protein (b).
4. (Previously Presented) The antibody or fragment thereof of claim 1 that specifically binds protein (c).
5. (Previously Presented) The antibody or fragment thereof of claim 1 that specifically binds protein (d).
6. (Previously Presented) The antibody or fragment thereof of claim 2 that specifically binds protein (b).
7. (Previously Presented) The antibody or fragment of claim 3, wherein said protein bound by said antibody or fragment thereof is glycosylated.

8. (Previously Presented) The antibody or fragment thereof of claims 3 which is a human antibody.
9. (Previously Presented) The antibody or fragment thereof of claim 3 which is a polyclonal antibody.
10. (Previously Presented) The antibody or fragment thereof of claim 3 which is selected from the group consisting of:
 - (a) a chimeric antibody;
 - (b) a humanized antibody;
 - (c) a single chain antibody; and
 - (d) a Fab fragment.
11. (Previously Presented) The isolated antibody or fragment thereof of claim 3 which is labeled.
12. (Previously Presented) The isolated antibody of claim 11, wherein the label is selected from the group consisting of:
 - (a) an enzyme label;
 - (b) a radioisotope; and
 - (c) a fluorescent label.
13. (Previously Presented) The antibody or fragment thereof of claim 3, wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.
14. (Previously Presented) The antibody or fragment thereof of claim 3, wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.
15. (Previously Presented) An isolated cell that produces the antibody or fragment thereof of claim 3.

16. (Previously Presented) A hybridoma that produces the antibody of claim 3.
17. (Previously Presented) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:
 - (a) a protein comprising the amino acid sequence of amino acid residues 1 to 136 of SEQ ID NO:310; and
 - (b) a protein comprising the amino acid sequence of amino acid residues 25 to 136 of SEQ ID NO:310;
 - (c) a protein comprising the amino acid sequence of at least 30 contiguous amino acid residues of SEQ ID NO:310; and
 - (d) a protein comprising the amino acid sequence of at least 50 contiguous amino acid residues of SEQ ID NO:310;wherein said antibody or fragment thereof specifically binds to said amino acid sequence.
18. (Previously Presented) The antibody or fragment thereof of claim 17 obtained from an animal immunized with protein (a).
19. (Previously Presented) The antibody or fragment thereof of claim 17 obtained from an animal immunized with protein (b).
20. (Previously Presented) The antibody or fragment thereof of claim 17 obtained from an animal immunized with protein (c).
21. (Previously Presented) The antibody or fragment thereof of claim 17 obtained from an animal immunized with protein (d).
22. (Previously Presented) The antibody of fragment thereof of claim 17 which is a monoclonal antibody.
23. (Previously Presented) The antibody or fragment thereof of claim 17 which is

selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a polyclonal antibody;
- (c) a humanized antibody;
- (d) a single chain antibody; and
- (e) a Fab fragment.

24. (Previously Presented) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:
- (a) a protein consisting of amino acid residues 1 to 136 of SEQ ID NO:310;
 - (b) a protein consisting of amino acid residues 25 to 136 of SEQ ID NO:310;
 - (c) a protein consisting of a portion of SEQ ID NO:310, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:310; and
 - (d) a protein consisting of a portion of SEQ ID NO:310, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO: 310.
25. (Previously Presented) The antibody or fragment thereof of claim 24 that specifically binds protein (a).
26. (Previously Presented) The antibody or fragment thereof of claim 24 that specifically binds protein (b).
27. (Previously Presented) The antibody or fragment thereof of claim 24 that specifically binds protein (c).
28. (Previously Presented) The antibody or fragment thereof of claim 24 that specifically binds protein (d).
29. (Previously Presented) The antibody or fragment thereof of claim 26, wherein said

protein bound by said antibody or fragment thereof is glycosylated.

30. (Previously Presented) The antibody or fragment thereof of claim 26 which is a human antibody.
31. (Previously Presented) The antibody or fragment thereof of claim 22 which is selected from the group consisting of:
 - (a) a chimeric antibody;
 - (b) a humanized antibody;
 - (c) a single chain antibody; and
 - (d) a Fab fragment.
32. (Previously Presented) The antibody or fragment thereof of claim 26 which is labeled.
33. (Previously Presented) The isolated antibody of claim 26, wherein the label is selected from the group consisting of:
 - (a) an enzyme label;
 - (b) a radioisotope; and
 - (c) a fluorescent label.
34. (Previously Presented) The antibody or fragment thereof of claim 26, wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.
35. (Previously Presented) The antibody or fragment thereof of claim 26, wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.
36. (Previously Presented) An isolated cell that produces the antibody or fragment thereof of claim 26.

37. (Previously Presented) A hybridoma that produces the antibody of claim 26.
38. (Previously Presented) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:
- (a) a protein consisting of the full-length polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975;
 - (b) a protein consisting of the mature form of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975;
 - (c) a protein consisting of a portion of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975, wherein said protein comprises at least 30 contiguous amino acid residues of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975; and
 - (d) a protein consisting of a portion of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975, wherein said portion comprises at least 50 contiguous amino acid residues of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975.
39. (Previously Presented) The antibody or fragment thereof of claim 38 that specifically binds protein (a).
40. (Previously Presented) The antibody or fragment thereof of claim 38 that specifically binds protein (b).
41. (Previously Presented) The antibody or fragment thereof of claim 38 that specifically binds protein (c).
42. (Previously Presented) The antibody or fragment thereof of claim 38 that specifically binds protein (d).

43. (Previously Presented) The antibody or fragment thereof of claim 39 that specifically binds protein (b).
44. (Previously Presented) The antibody or fragment thereof of claim 40, wherein said protein bound by said antibody or fragment thereof is glycosylated.
45. (Previously Presented) The antibody or fragment thereof of claim 40 which is a human antibody.
46. (Previously Presented) The antibody or fragment thereof of claim 40 which is a polyclonal antibody.
47. (Previously Presented) The antibody or fragment thereof of claim 40 which is selected from the group consisting of:
 - (a) a chimeric antibody;
 - (b) a humanized antibody;
 - (c) a single chain antibody; and
 - (d) a Fab fragment.
48. (Previously Presented) The antibody or fragment thereof of claim 40 which is labeled.
49. (Previously Presented) The antibody or fragment thereof of claim 48, wherein the label is selected from the group consisting of:
 - (a) an enzyme;
 - (b) a radioisotope; and
 - (c) a fluorescent label.
50. (Previously Presented) The antibody or fragment thereof of claim 40, wherein said antibody or fragment thereof specifically binds to said protein in a Western Blot.

51. (Previously Presented) The antibody or fragment thereof of claim 40, wherein said antibody or fragment thereof specifically binds to an ELISA.
52. (Previously Presented) An isolated cell that produces the antibody or fragment thereof of claim 40.
53. (Previously Presented) A hybridoma that produces the antibody of claim 40.
54. (Previously Presented) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:
- (a) a protein comprising the amino acid sequence of the full-length polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975;
 - (b) a protein comprising the amino acid sequence of the mature form of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975;
 - (c) a protein comprising the amino acid sequence of at least 30 contiguous amino acid residues of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975; and
 - (d) a protein comprising the amino acid sequence of at least 50 contiguous amino acid residues of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975;
- wherein said antibody or fragment thereof specifically binds to said amino acid sequence.
55. (Previously Presented) The antibody or fragment thereof of claim 54 obtained from an animal.
56. (Previously Presented) The antibody or fragment thereof of claim 54 obtained from an animal immunized with protein (b).

57. (Previously Presented) The antibody or fragment thereof of claim 54 obtained from an animal immunized with protein (c).
58. (Previously Presented) The antibody or fragment thereof of claim 54 obtained from an animal immunized with protein (d).
59. (Previously Presented) The antibody or fragment thereof of claim 54 which is a monoclonal antibody.
60. (Previously Presented) The antibody or fragment thereof of claim 54 which is selected from the group consisting of:
- (a) a chimeric antibody;
 - (b) a polyclonal antibody;
 - (c) a humanized antibody;
 - (d) a single chain antibody; and
 - (e) a Fab fragment.
61. (Previously Presented) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:
- (a) a protein consisting of the full-length polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975;
 - (b) a protein consisting of the mature form of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975;
 - (c) a protein consisting of a portion of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975, wherein said portion comprises at least 30 contiguous amino acid residues of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975; and
 - (d) a protein consisting of a portion of the polypeptide encoded by the HEMAE80 cDNA contained in ATCC Deposit Number 97975, wherein said portion

comprises at least 50 contiguous amino acid residues of the polypeptide encoded by the HEMA80 cDNA contained in ATCC Deposit Number 97975.

62. (Previously Presented) The antibody or fragment thereof of claim 61 that specifically binds protein (a).
63. (Previously Presented) The antibody or fragment thereof of claim 61 that specifically binds protein (b).
64. (Previously Presented) The antibody or fragment thereof of claim 61 that specifically binds protein (c).
65. (Previously Presented) The antibody or fragment thereof of claim 61 that specifically binds protein (d).
66. (Previously Presented) The antibody or fragment thereof of claim 62 that specifically binds protein (b).
67. (Previously Presented) The antibody or fragment thereof of claim 63, wherein said protein bound by said antibody or fragment thereof is glycosylated.
68. (Previously Presented) The antibody or fragment thereof of claim 63 which is a human antibody.
69. (Previously Presented) The antibody or fragment thereof of claim 63 which is selected from the group consisting of:
 - (a) a chimeric antibody;
 - (b) a humanized antibody;
 - (c) a single chain antibody; and
 - (d) a Fab fragment.

70. (Previously Presented) The antibody or fragment thereof of claim 63 which is labeled.
71. (Previously Presented) The antibody or fragment thereof of claim 70, wherein the label is selected from the group consisting of:
- (a) an enzyme;
 - (b) a radioisotope; and
 - (c) a fluorescent label.
72. (Previously Presented) The antibody or fragment thereof of claim 63, wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.
73. (Previously Presented) The antibody or fragment thereof of claim 63, wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.
74. (Previously Presented) An isolated cell that produces the antibody or fragment thereof of claim 63.
75. (Previously Presented) A hybridoma that produces the antibody of claim 63.
76. (Currently Amended): An isolated antibody or fragment thereof that specifically binds Secreted Protein HEMA80 ~~expressed on the surface of cells in a cell culture wherein the cells in said cell culture comprise purified from a cell culture wherein~~ said protein is encoded by a polynucleotide encoding amino acids [[1]]²⁵ to 136 of SEQ ID NO:310 ~~operably associated with a regulatory sequence that controls the expression of said polynucleotide.~~
77. (Previously Presented) The antibody or fragment thereof of claim 76, wherein said protein bound by said antibody or fragment thereof is glycosylated.

78. (Previously Presented) The antibody or fragment thereof of claim 76 which is a human antibody.
79. (Previously Presented) The antibody or fragment thereof of claim 76 which is selected from the group consisting of:
- (a) a chimeric antibody;
 - (b) a humanized antibody;
 - (c) a single chain antibody; and
 - (d) a Fab fragment.
80. (Previously Presented) The antibody or fragment thereof of claim 76 which is labeled.
81. (Previously Presented) The antibody or fragment thereof of claim 80, wherein the label is selected from the group consisting of:
- (a) an enzyme;
 - (b) a radioisotope; and
 - (c) a fluorescent label.
82. (Previously Presented) The antibody or fragment thereof of claim 76, wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.
83. (Previously Presented) The antibody or fragment thereof of claim 76, wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.
84. (Previously Presented) An isolated cell that produces the antibody or fragment thereof of claim 76.
85. (Previously Presented) A hybridoma that produces the antibody of claim 76.